Abstract of the Disclosure

A method provides a virtual reality environment by acquiring multiple videos of an object such as a person at one location with multiple cameras. The videos are reduced to a differential stream of 3D operators and associated operands. These are used to maintain a 3D model of point samples representing the object. The point samples have 3D coordinates and intensity information derived from the videos. The 3D model of the person can then be rendered from any arbitrary point of view at another remote location while acquiring and reducing the video and maintaining the 3D model in real-time.